

ANALYZER WITH VARIABLE VOLUME BALLAST CHAMBER
AND METHOD OF ANALYSIS

ABSTRACT OF THE DISCLOSURE

An analyzer having a combustion furnace includes a gas flow stream including a combustion detector in the stream of byproducts of combustion and a variable volume ballast chamber for receiving byproducts of combustion and which has a movable piston which moves in response to the introduced combustion byproducts. Subsequently, an aliquot sample from the chamber is forced through detectors for elements being detected. The method of analysis incorporating the present invention includes filling a variable volume ballast chamber with byproducts of combustion until combustion completion has been detected and, subsequently, forcing at least an aliquot sample of the combustion byproducts from the variable volume ballast chamber into a flow path including detectors for the elements of interest.